

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

Please cancel claims 31 to 42 and 65 to 107, without prejudice.

This listing of claims will replace all prior versions, and listing, of claims in the application:

Claims 1 to 52 (canceled)

Claim 53 (previously presented) A method of generating a nucleic acid that encodes a polypeptide having a polymerase activity comprising:

obtaining a nucleic acid comprising a sequence as set forth in SEQ ID NO:1, or its complement;

modifying one or more nucleotides in said sequence to another nucleotide, deleting one or more nucleotides in said sequence, or adding one or more nucleotides to said sequence, to generate a variant nucleic acid that encodes a polypeptide having polymerase activity;

expressing the variant nucleic acid to generate a polypeptide; and

screening the polypeptide for a polymerase activity, thereby generating a nucleic acid encoding a polypeptide having a polymerase activity.

Claim 54 (previously presented) The method of claim 53, wherein the modifications are introduced by a method selected from the group consisting of error-prone PCR, shuffling, oligonucleotide-directed mutagenesis, assembly PCR, sexual PCR mutagenesis, in vivo mutagenesis, cassette mutagenesis, recursive ensemble mutagenesis, exponential ensemble mutagenesis, site-specific mutagenesis, ligation reassembly, Gene Site Saturation Mutagenesis™ (GSSM™) and any combination thereof.

Claim 55 (previously presented) The method of claim 53, wherein the modifications are introduced by error-prone PCR.

Claim 56 (previously presented) The method of claim 53, wherein the modifications are introduced by shuffling.

Claim 57 (previously presented) The method of claim 53, wherein the modifications are introduced by oligonucleotide-directed mutagenesis.

Claim 58 (previously presented) The method of claim 53, wherein the modifications are introduced by assembly PCR.

Claim 59 (previously presented) The method of claim 53, wherein the modifications are introduced by sexual PCR mutagenesis.

Claim 60 (previously presented) The method of claim 53, wherein the modifications are introduced by in vivo mutagenesis.

Claim 61 (previously presented) The method of claim 53, wherein the modifications are introduced by cassette mutagenesis.

Claim 62 (previously presented) The method of claim 53, wherein the modifications are introduced by recursive ensemble mutagenesis.

Claim 63 (previously presented) The method of claim 53, wherein the modifications are introduced by exponential ensemble mutagenesis.

Claim 64 (previously presented) The method of claim 53, wherein the modifications are introduced by site-specific mutagenesis.

Claims 65 to 107 (canceled)